

Serial No. 10/027,122 Filed: 12/20/2001 GAU: 2122
Customer Assignment No. 27516 Attorney Docket No. RA-5425
Application: Eugene A. Rodi et al
Michael B. Atlase Reg. No. 30,606 651-635-7062
Drawing 01 of 12

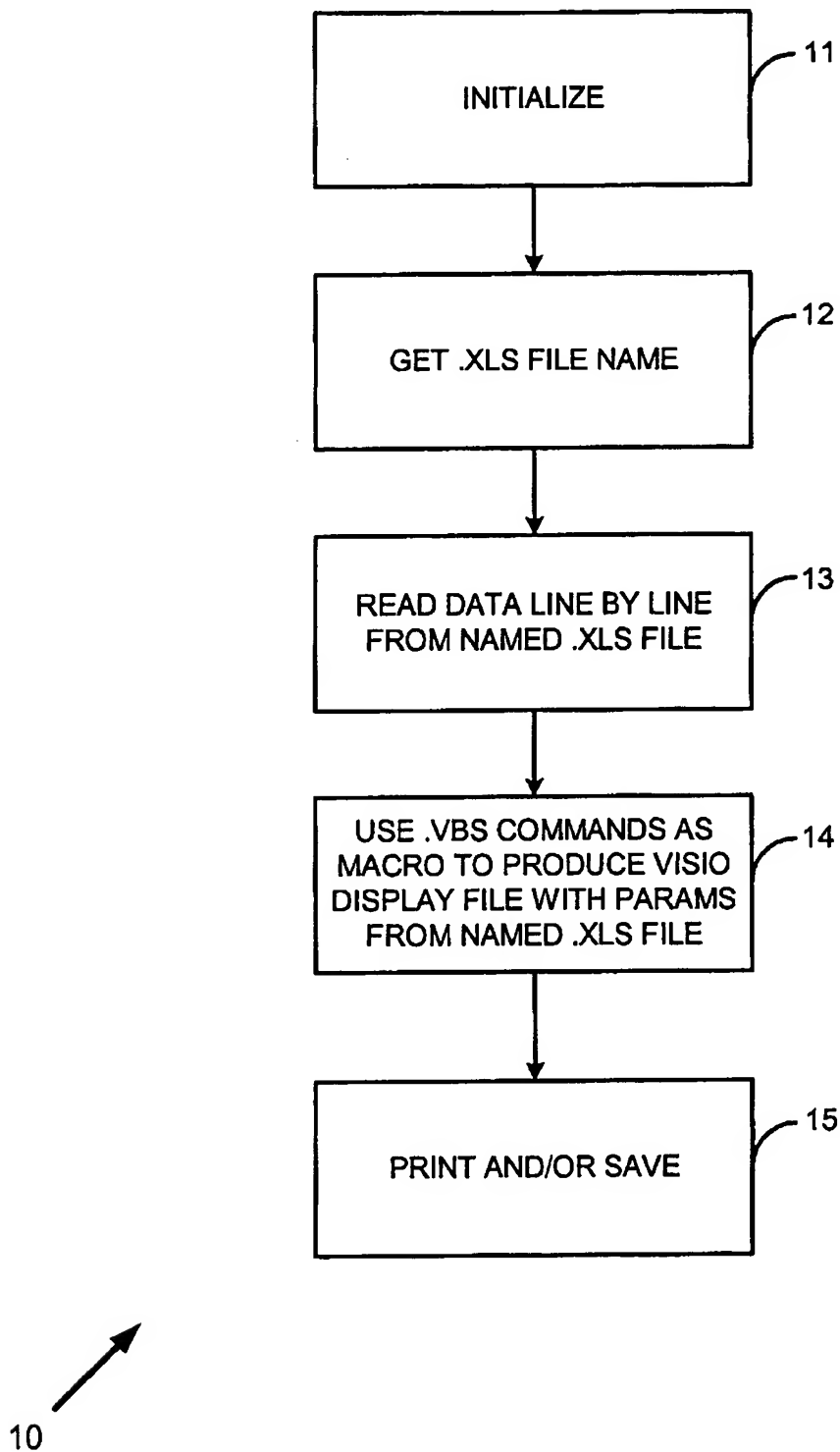


FIG. 1

Serial No. 10/028,152 Filed: 12/20/2001 GAU: 2122
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 Drawing 02 of 12

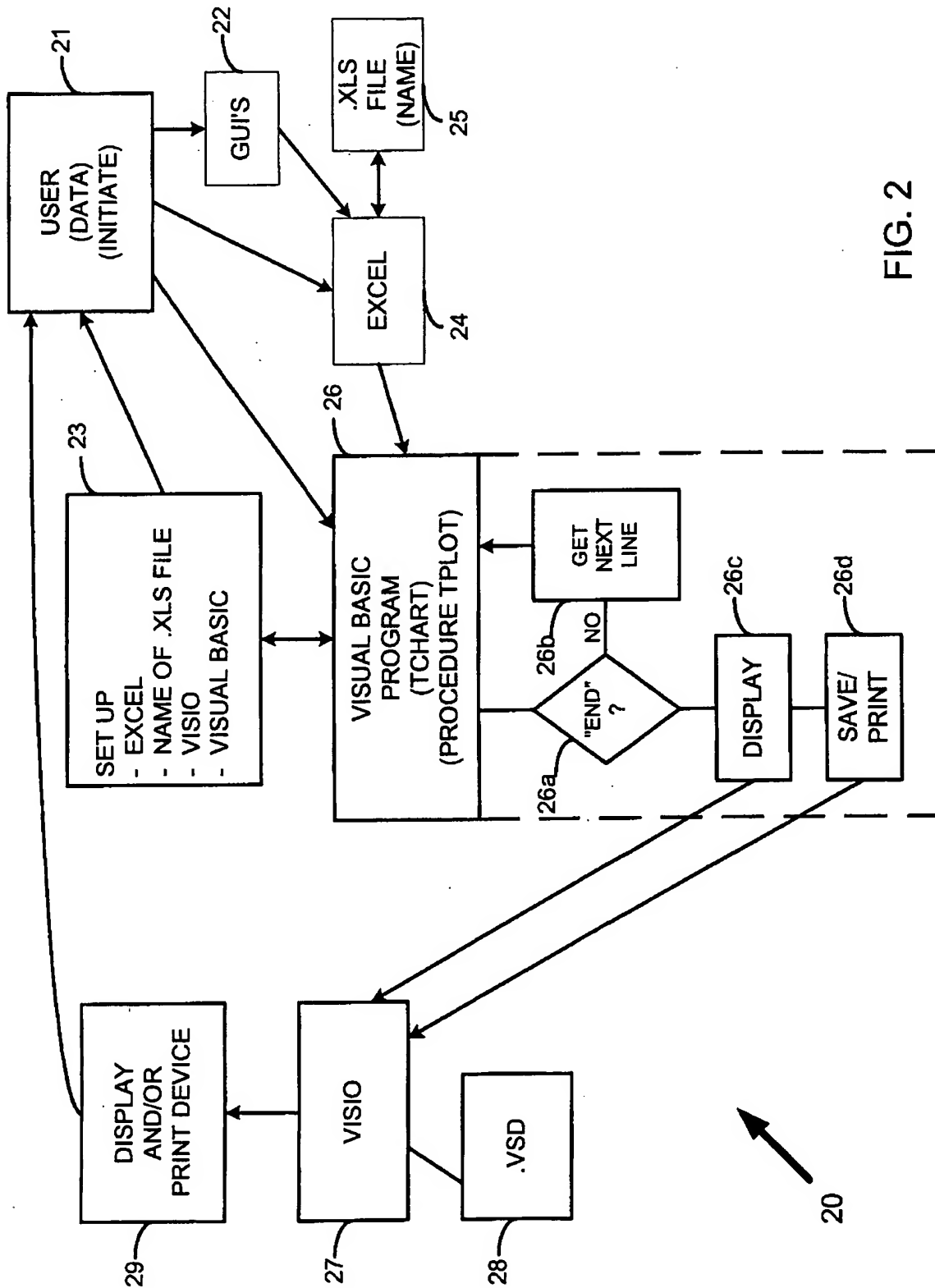


FIG. 2

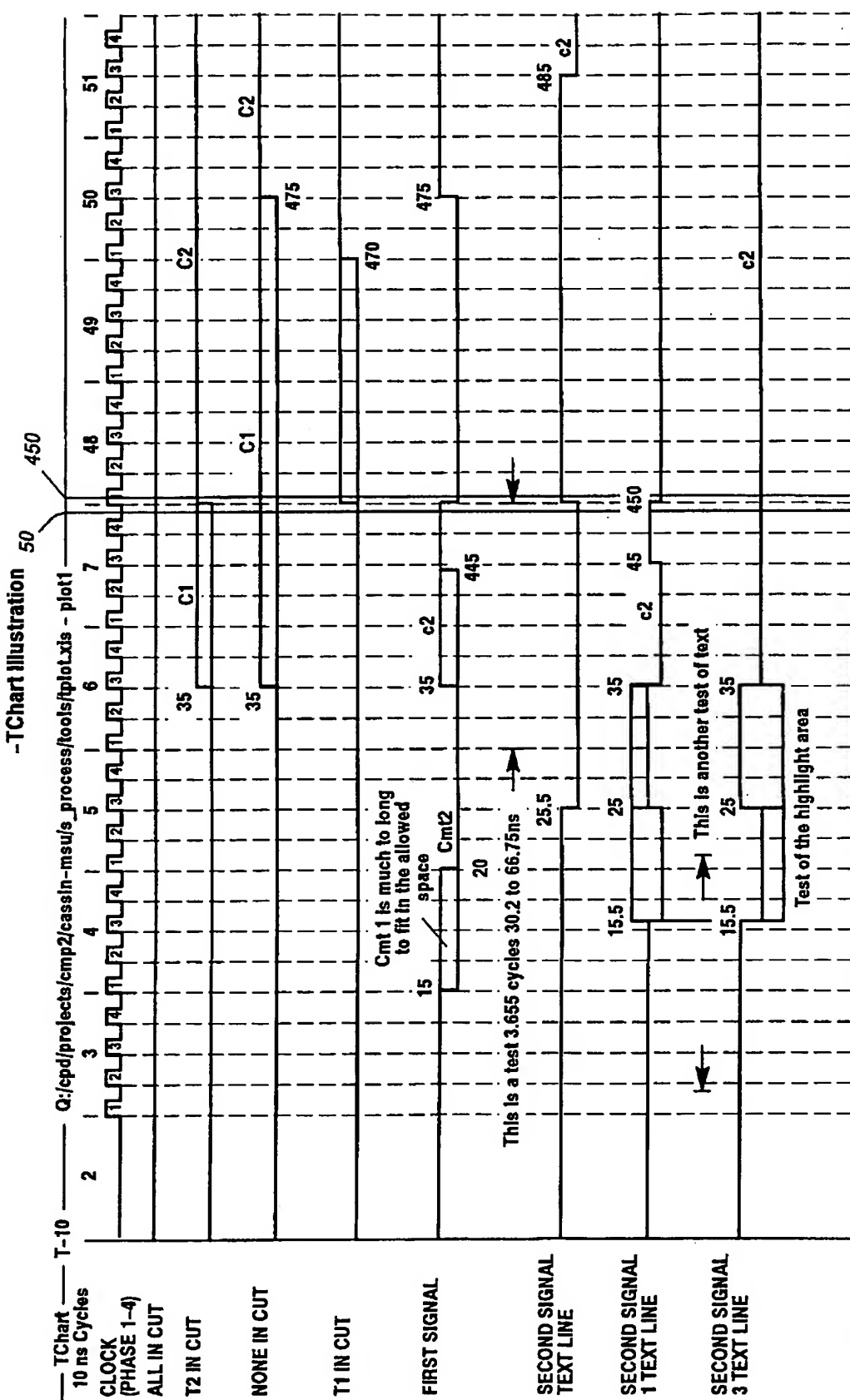
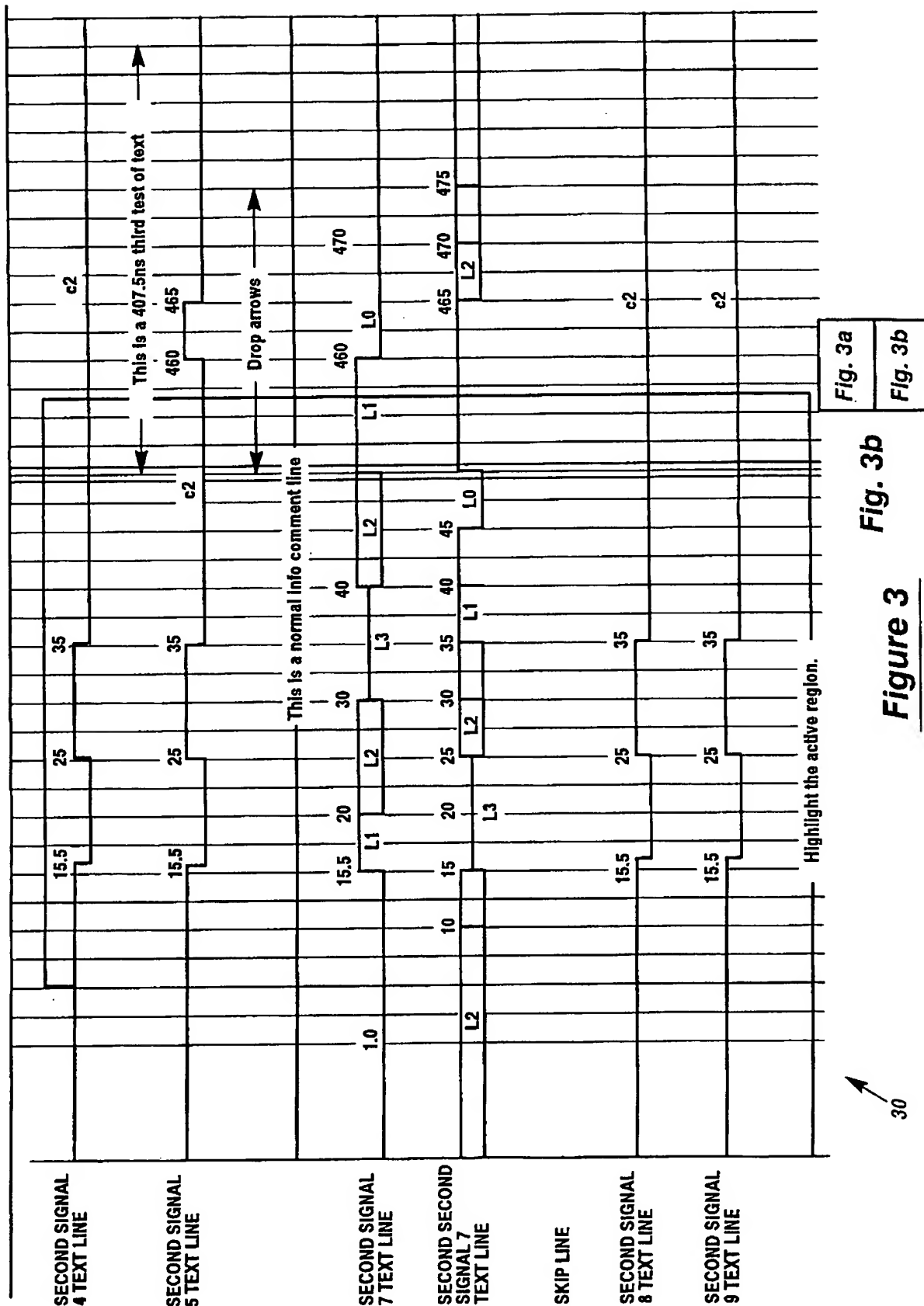


Fig. 3a
Fig. 3b

Fig. 3a

Figure 3

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Drawing 05 of 12

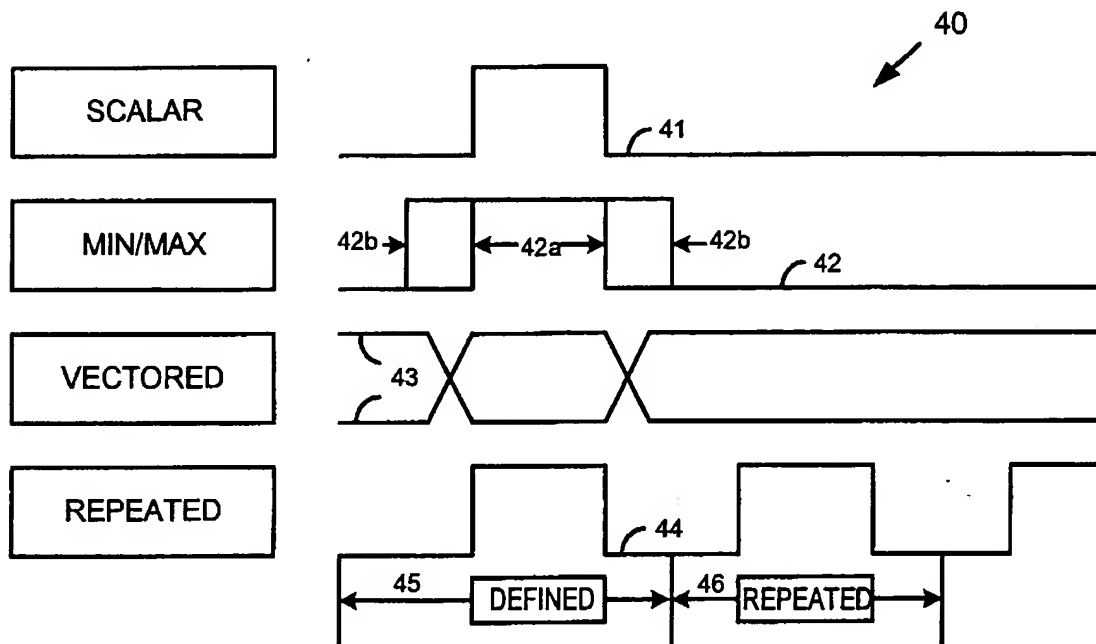


FIG. 4A

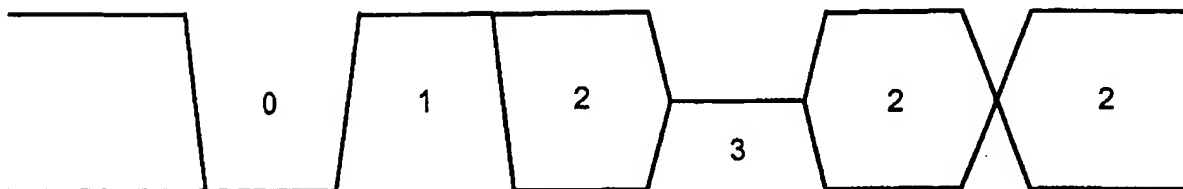


FIG. 4B

Create a new TChart definition

TimeChart
Version 1.0 Jan 24, 2001 E.A. Rodi

Card Option
☐ Plot Borders
Page Size ☒ A ☐ B ☐ C ☐ D ☐ E
☒ Landscape
☒ Display Times
☒ Display Bottom Time
☒ Alternate Text
Plot Color ☒ Black ☐ Red ☐ Green ☐ Blue
☐ Violet ☐ Cyan

Header
Drawing title
Base time for plot td

Cycles
Number of cycles to plot Time period of each cycle Number of first cycle (+/-)
Optional Inputs
Title Time where timeline is broken
Time where timeline resumes

Time Markers
☐ Repeat markings repeated cycles
Time period of repeat cycle
t-M1 t-M2 t-M3 t-M4 t-M5 t-M6 t-M7 t-M8

-NewTimeChart GUI

Figure 5

Add Clocks

Pre-clock options

☒ Time ☐ Bottom ☒ Alt

Plot Color ☒ Black ☐ Red ☐ Green ☐ Blue ☐ Violet ☐ Cyan

Define Clocks using Phase commands

Title	Initial Level	Phase Offset	Phase Width	Cycle Time

Define clocks using Repeat command (Optional)

Title	Initial Level	Cycle Time	Num Rots

Post-clock options

☒ Time ☒ Bottom ☒ Alt

Plot Color ☒ Black ☐ Red ☐ Green ☐ Blue ☐ Violet ☐ Cyan

Write to Excel

Cancel

60
-AddClocks GUI
Figure 6

Add New Signals

Options

☒ Time ☒ Bottom ☒ Alt ☐ Plot Color ☒ Black ☐ Red ☐ Green ☐ Blue ☐ Violet ☐ Cyan

Signal Templates

Plotas: ☒ Scaler ☐ Min/Max ☐ Vector ☐ Repeat ☐ Dotted ☐ Glitch

Title Initial Level 0 Cycle Time of Repeat Number of Repeats 2 Number of Transitions 1 Glitch Type 1

Infos

☒ Comment ☐ Arrows ☐ Begin Arrow ☐ End Arrow ☐ Open Arrow ☐ Close Box

Object Number Time T1 Time T2 Text

At time

-AddNewSignals GUI

Figure 7

70

options	+I	-B							
H	Test Timing Plot Data								
Cycle	10								
options	-T								
Rpt	Clock (Phase 1-4)								
T	0								
T	1.25								
T	2.5								
T	3.75								
T	5								
T	6.25								
T	7.5								
T	8.75								
Options	+T								
Mark									
Label	All in cut								
T	65	C1							
T	85	CC11							
Label	T2 in cut								
T	35	C1							
Label	NONE in cut								
T	35	C1							
Label	T1 in cut								
T	65	C1							
T	85								
T	111								
Label	First Signal								
T	10	Cmt 1 too long to fit this space							
T	35	c2							
Glitch	55	txt							
T	66.6	last							

Figure 8A

T		475	Done						
Info	Show test #c cycles 30.2 to 66ns		Arrows	1	30.2	66.8			
Label	Second Signal Text Line			1					
T		25.5							
T		125	c1						
T		485			< c2				
Label	Second Signal 1 Text Line			1					
T		15.5							
T		25	c1						
T		35			c2				
T		45	source of drop						
T		450							
Info	Test of the highlight area		OpenBox	1	15.5	35			
Info	Drop Arrows		BeginArrow	1	55	475			
Info	This is another test of text.		Arrows	1	2	21			
Label	Second Signal 3 Text Line			1					
t		15.5							
t		25	c1						
t		35			c2				
Info			CloseBox	1					
Label	Second Signal 4 Text Line			1					
t		15.5							
Info	Highlight the active region.		OpenBox	9	5	457			
t		25	c1						
t		35			c2				
Info	Mark #1 ns. third test of text		Arrows	1	80	488			
Label	Second Signal 5 Text Line			1					
T		15.5							

Figure 8B

T	25	c1			
T	35				c2
T	480				
T	465				
Info	test of drop arrows	EndArrow	1		
Info	Mark normal info comment line.				
LV	Second Signal 7 Text Line	0			
TV	15.5 L0	L0	0		
TV	20 L1	L1	1		
TV	30 L2	L2	2		
TV	40 L3	L3	3		
TV	50 L2	L2	2		
TV	460 L1	L1	1		
TV	470 L0	L0	0		
Label v	Second Second Signal 7 Text Line	3			
TV	10 L2	L2	2		
TV	15		2		
TV	20 L3	L3	3		
TV	25		3		
TV	30 L2	L2	2		
TV	35		2		
TV	40 L1	L1	1		
TV	45		1		
TV	50 L0	L0	0		
TV	55		0		
TV	60 L1	L1	1		
TV	465		1		
TV	470 L2	L2	2		
TV	475		2		
Label	Skip line	1			
Glitch	1000				

Figure 8C

Label	Second Signal 8 Text Line	1			
T	15.5				
T	25	c1			
T	35		c2		
Label	Second Signal 9 Text Line	1			
T	15.5				
T	25	c1			
T	35		c2		
Info	This text should not print!	CloseBox	9		
LV	Second Signal 7 Text Line	0			
TV	15.5	L0	0		
TV	20	L1	1		
TV	30	L2	2		
TV	40	L3	3		
TV	50	L2	2		
TV	460	L1	1		
TV	470	L0	0		
Label	Second Signal 7 Text Line	3			
TV	10	L2	2		
TV	15		2		
TV	20	L3	3		
TV	25		3		
TV	30	L2	2		
TV	35		2		
TV	40	L1	1		
TV	45		1		
TV	50	L0	0		
TV	55		0		
TV	60	L1	1		
TV	465		1		
TV	470	L2	2		
TV	475		2		
Info	Show text #c cycles 30.2 to 66 ns	Arrows	1	30.2	66.8
END					

Figure 8D